

# Caso 5 trinomio cuadrado x adicion o sustraccion

$$\begin{aligned}
 \textcircled{1} \quad & a^4 + a^2 + 1 = \frac{a^4 + a^2 + 1}{+a^2} - a^2 \\
 & \downarrow \begin{matrix} a^2 \cdot 1 \cdot 2 \\ a^2 \end{matrix} \quad \downarrow 1 \\
 & a^4 + 2a^2 + 1 - a^2 \\
 & (a^4 + 2a^2 + 1) - a^2 \\
 & \downarrow \begin{matrix} a^2 \cdot 1 \cdot 2 \\ a^2 \end{matrix} \quad \downarrow 1 \\
 & a^2 + 1 \\
 & (a^2 + 1)^2 - a^2 \\
 & ((a^2 + 1) + a) ((a^2 + 1) - a) \\
 & (a^2 + 1 + a) (a^2 + 1 - a) \\
 & (a^2 + a + 1) (a^2 - a + 1)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{2} \quad & x^4 - 6x^2 + 1 = \frac{x^4 - 6x^2 + 1}{+4x^2} - 4x^2 \\
 & \downarrow \begin{matrix} x^2 \cdot 1 \cdot 2 \\ x^2 \end{matrix} \quad \downarrow 1 \\
 & x^4 - 2x^2 + 1 - 4x^2 \\
 & (x^4 - 2x^2 + 1) - 4x^2 \\
 & (x^2 - 1)^2 - 4x^2 \\
 & ((x^2 - 1) + 2x) ((x^2 - 1) - 2x) \\
 & (x^2 - 1 + 2x) (x^2 - 1 - 2x) \\
 & (x^2 + 2x - 1) (x^2 - 2x - 1)
 \end{aligned}$$